

Patent Application
Docket No. 10004410-1
47429-00028USPT

REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1, 3-10, and 15-20 are pending in this application.

Claims 2 and 11-14 have been canceled without prejudice.

New claims 19 and 20 have been added.

Regarding the § 102 Rejection

Claims 1 and 10 were rejected under 35 U.S.C. § 102(b) for being anticipated by Campbell et al (U.S. Patent No. 5,021,654).

The method of claim 1 recites, among other things, "removing a portion of the covering material from said cavity." Applicant agrees with the Examiner that Campbell et al does not include "removing a portion of the covering material". As such, Applicant respectfully submits that claim 1 is not anticipated by Campbell et al and respectfully requests that the § 102 rejection be withdrawn.

With respect to independent claim 10, as amended, this claim recites "a ceramic substrate having a cavity therein." The "cavity is substantially a first cylindrical bore." A conductive coating is found on "at least two separate areas on opposing surfaces of the first cylindrical bore." "The at least two separate areas of conductive coating are separated by a secondary bore having an axis parallel to the first cylindrical bore." Applicant respectfully points out that Campbell et al does not teach, allude to or render obvious providing "a secondary bore having an axis parallel to the first cylindrical bore." Furthermore, Campbell et al does not teach, allude to, or render obvious separating "the at least two separate areas of conductive coating" by the secondary bore. As such, Applicant respectfully submits that claim 10 is not anticipated by Campbell et al and respectfully requests the § 102 rejection be withdrawn.

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Regarding the § 103 Rejection

Claims 1-18 were rejected under 35 U.S.C. § 103(a) as being rendered obvious by Campbell et al in view of Sinha (U.S. Patent No. 6,191,419).

With respect to claim 1, as amended, the method recites "shaping a ceramic material such that the ceramic material has a cavity." Furthermore, claim 1 recites "removing a portion of the covering material from said cavity."

Applicant agrees that Campbell et al does not teach, allude to or render obvious "removing a portion of the covering material." Applicant further points out that Sinha does not teach, allude to or render obvious "removing a portion of the covering material from said cavity." In particular, Sinha teaches a groove having a ridge and rails. The groove is curved and is open on more than one side. Therefore, the groove, ridge, slot is not *per se* a cavity. (See Col. 2, Lines 38, 39 and 48) At line 57 the element 300 is referred to as a cavity but is in fact a ridge which travels in a curved fashion having the insulation brake section 410 therein. Applicant respectfully submits that although Sinha states a cavity is provided in its specification, the cavity is in fact a ridge 300 that is machined into the insulating block. Applicant would gladly have an interview with the Examiner over this specific point, if requested. As such, Applicant respectfully submits that Campbell in view of Sinha does not teach, allude to or render obvious claim 1 and respectfully requests that the § 103 rejection be withdrawn.

Claims 3 and 4 are dependent upon claim 1 and are therefore not rendered obvious for at least the same reasons as stated above with respect to claim 1.

Claim 5 recites that the cavity is "substantially shaped as a cylindrical bore in ceramic material." Claim 5 further recites that removal of a portion of the covering material "comprises removing at least two portions of the covering material on opposing surfaces of the interior of the bore to create at least two separate opposing areas of covering material."

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Applicant respectfully points out that although Campbell may provide two opposing surfaces on the interior of its bore (see elements 133 and 52 of Campbell), Campbell does not teach, allude to or render obvious "removing at least two portions of the covering material on opposing surfaces of the interior of the bore." Furthermore, Sinha not only does not teach a cavity, but does not teach removing a portion of the covering material by "removing at least two portions of the covering material on opposing surfaces of the interior of the bore to create at least two separate, opposing areas of covering material." Sinha teaches creating an insulation break section 410 along an essential region of the inside of the ridge 300. There is no bore nor cavity disclosed in Sinha. As such, Applicant respectfully submits that claim 5 is not rendered obvious for the reasons stated here and above with respect to claim 1. Applicant respectfully requests that the § 103 rejection be withdrawn.

With respect to claim 6, this claim is dependent upon claim 1 and is therefore not rendered obvious for at least the same reasons as discussed above with respect to claim 1. Furthermore, claim 6 recites removing a portion of the covering material "circumscribing the interior perimeter of the cavity to create at least two substantially parallel bands of conductivity on an inner surfaces of the cavity." Applicant respectfully points out that none of the art cited, teaches, alludes to or renders obvious the elements of claim 6 wherein removing a portion of the covering material comprises "removing at least one portion of the covering material circumscribing the interior perimeter of the cavity." Campbell does not teach removing material and Sinha does not teach removing material circumscribing the interior perimeter of a cavity. As such, Applicant respectfully requests that the § 103 rejection be withdrawn and submits that claim 6 is ready for allowance.

Claim 7 is dependent upon claim 6 and is therefore not rendered obvious for at least the same reasons as stated above with respect to claim 6.

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Claim 8 is dependent upon claim 6 and is not rendered obvious for at least the same reasons as stated above with respect to claim 6. Furthermore, claim 8 recites "separating the ceramic material into a first portion and a second portion; and joining the first portion and second portion back together with a conductive grid therebetween." Applicant respectfully points out that although Campbell has a cavity made of ceramic material, Campbell does not teach, allude to or render obvious separating the ceramic material into a first portion and a second portion "and joining the first and the second portion back together with a conductive grid therebetween." Sinha does not alleviate deficiencies of Campbell because, as stated above, Sinha does not have a cavity nor does have Sinha teach separating ceramic material into a first portion and a second portion and "joining the first portion and the second portion back together with a conductive grid therebetween." Applicant respectfully requests that the § 103 rejection be withdrawn and submits that claim 8 is ready for allowance.

With respect to claim 9, as amended, this claim is dependent upon claim 1 and is therefore not rendered obvious for at least the same reasons as stated above with respect to claim 1. Furthermore, claim 9 recites a method wherein shaping the ceramic material "comprises providing a blind end in the cavity." Furthermore, claim 9 requires "covering at least a portion of the blind end in the interior of the cavity with a conductive material." Applicant respectfully submits that Campbell does not teach, allude to or render obvious a cavity having a blind end. Furthermore, Applicant submits that Sinha teaches a ridge 300, rather than a cavity, and thus no blind end is provided to cover with a conductive material. Applicant respectfully submits that Sinha teaches an open ended ridge 300. Applicant respectfully requests that the § 103 rejection be withdrawn and submits that claim 9 is ready for allowance.

Regarding independent 10, this claim has been amended to recite "a conductive coating on at least two separate areas on opposing surfaces of the first cylindrical bore,

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wherein the at least two separate areas of conductive coating are separated by secondary bore having an axis parallel to the first cylindrical bore." Applicant respectfully submits that neither Campbell or Sinha teach, allude to or render obvious separating the areas of conductive coating "by a secondary bore having an axis parallel to the first cylindrical bore." No secondary bores are discussed in the cited art. Furthermore, in response to the Examiner's statement that it is "well known in the art to utilize readily available machining techniques to selectively remove material from coated and uncoated areas when shaping a ceramic optic device, Applicant has reviewed U.S. Patent Nos. 6,281,494; 5,384,461; 5,286,944; and 4,390,784 and discerned that none of the cited art teaches, alludes to or renders obvious using "a secondary bore having an access parallel to the first cylindrical bore" to separate at least two areas of conductive coating. Applicant respectfully submits that claim 10 is ready for allowance and requests that the § 103 rejection be withdrawn.

Claim 17 is dependent upon claim 10 and is therefore not rendered obvious for at least the same reasons as stated above with respect to claim 10.

Claims 15, 16 and 18 are dependent upon new independent claim 19. Claim 19 requires, among other things, "a conductive coating substantially covering the interior surface" of the blind end of a cavity. Furthermore, claim 19 recites that the conductive coating is further provided "in at least two separate bands circumscribing the cavity."

As discussed above, none of the cited art teaches, alludes to or renders obvious a blind cavity. Furthermore, the cited art does not teach, allude to or render obvious a conductive coating substantially covering the interior surface of the blind end of the cavity. Finally, the cited art does not teach, allude to or render obvious the previously discussed elements combined with a conductive coating provided in at least two separate bands circumscribing the cavity. As such, Applicant respectfully submits that new independent claim 19 is ready for allowance.

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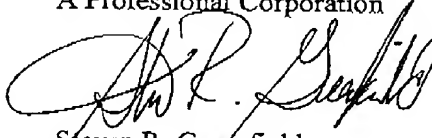
Since claims 15, 16, 18 and new claim 20 are dependent upon new claim 19, Applicant respectfully submits that these claims are ready for allowance for at least the same reasons as stated above with respect to claim 19 as well as with respect to previous reasons discussed above in the body of the Amendment. Applicant respectfully requests that the § 103 rejection be withdrawn and submits that all claims as presently amended are ready for allowance.

Should the Examiner have any further questions or comments facilitating allowance, the Examiner is invited to contact Applicant's representative indicated below to further prosecution of this application to allowance and issuance.

In view of the above, it is believed that this application is in condition for allowance, and such a Notice is respectfully requested.

Respectfully submitted,

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